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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,568	03/15/2004	Kageyuki Tomoyori	KON-1862	9818
20311	7590	02/01/2006	EXAMINER	
LUCAS & MERCANTI, LLP 475 PARK AVENUE SOUTH 15TH FLOOR NEW YORK, NY 10016			GOODROW, JOHN L	
			ART UNIT	PAPER NUMBER
			1756	

DATE MAILED: 02/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/800,568

Applicant(s)

TOMOYORI, KAGEYUKI

Examiner

John L. Goodrow

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al in view of Kawaguchi et al. Applicant's claims are to a image forming method with a toner having various combinations of physical properties. The method is on a photosensitive photoreceptor which has a measured cylindricity of 5-40 μ m. The skilled worker by different honing or coating techniques can approach the perfect cylinder for the photoreceptor however the perfect cylinder can never be obtained. Applicants 5-40 μ as the variation of the cylindricity appears to be the range of error in trying to approach the perfect cylindrical shape. Because of the difference the distance between the photoreceptor and the developing roller carrying the toner will vary. Applicant's use of a toner with known physical properties will improve the density of the developed image. All of the physical properties of the toner are known as taught by Kobayashi et al. Kobayashi et al [0025]-[0030] teaches some of the physical properties that improve the development of an electrophotographic latent image on a photoreceptor surface that is subjected to abrasion. These properties are the toner having a variation coefficient of said shape coefficient is not more than 16%, the number ratio of toner particles having a shape coefficient of 1.2 to 1.6 and is at least 65%, the number ratio of toner particles

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having no corners is 50% or more, a number variation coefficient in the toner number size distribution is not more than 27% and in a number based histogram, in which natural logarithm $\ln D$ is taken as the abscissa and said abscissa is divided into a plurality of classes at an interval of 0.23, a toner is preferred which exhibits at least 70% of the sum (M) of the relative frequency (m_1) of toner particles included in the highest frequency class, and the relative frequency (m_2) of toner particles included in the second highest frequency class. The surface of the photoreceptor has a $0 < P_{\max} < 2p$ note Fig. 1 & 2 that tentatively exhibits a specified layer thickness of 15-50 μ . Note [0070] within the range of cylindricity of applicant's range. When a toner with one of the physical properties mentioned above is employed, and more preferably satisfying all the physical properties are employed resolution and cleaning characteristics are improved, generation of half-tone unevenness is prevented and therefore, good image with good sharpness is obtained. Kawaguchi et al teaches the clearance between the photosensitive drum and the developing member is required to be accurate since it is closely related with the density of the image. The circularity tolerance of the photosensitive drum is designed as being not more than approx. 15 μ m to avoid the density difference. It would be obvious to one of ordinary skill in the art at the time of applicants' invention with a reasonable expectation of success to use toners with known characteristics to improve the developed image densities with a drum having a variation of its cylindricity.

Double Patenting

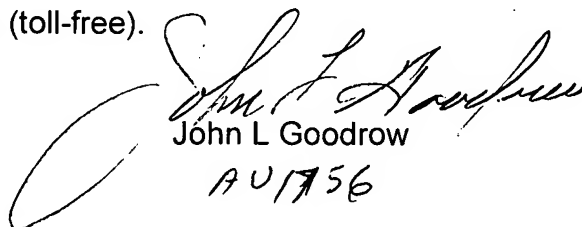
2. Claim 27 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 12 of copending Application No. 10/802452. Although the conflicting claims are not identical, they are not patentably distinct from each other because both teach an image forming method with a cylindrical electrophotographic photoreceptor having a cylindricity of 5-40 μ m.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John L. Goodrow whose telephone number is 571-272-1384. The examiner can normally be reached on Monday -Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark F. Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


John L Goodrow
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